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10/523,496	11/10/2005	Roland Kalb	54186/DBP/M521	3385

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EXAMINER

KAPLAN, HAL IRA

ART UNIT	PAPER NUMBER
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2836

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,496

Applicant(s)

KALB, ROLAND

Examiner

Hal I. Kaplan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/3/05, 3/14/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because it recites a power switch (LS) which does not appear in the specification or drawings. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: Page 3, lines 8-9 and 1-16 are unclear. Page 4, lines 26-29 are unclear. Page 10, lines 17-19 are unclear. Page 10, lines 17-19 recite two power switches in the form of relays. This is inconsistent with page 12, lines 3-4 which indicate that three power switches in the form of relays are provided. For examination purposes, it has been assumed that three power relays are provided. Page 10, line 18, "or the like" should be deleted. Page 11, lines 2-3 are unclear. Page 11, line 34, "as a condition to" should be "in order to". Page 11, lines 34-35, "an AND link ... the driver transistor" should be "the field effect transistor JFET and the driver transistor Q3 must both be conducting. Page 12, line 32, "third stage" should be "third step". Page 12, line 32, "or the like" should be deleted. Page 12, lines 32-34 state that if the engine ignition is switched on in the third step, then in a fourth step the potential to independent lead connection St is switched off. This is inconsistent with Figure 4a which indicates that the "potential LV" is switched on. It is also unclear what is meant by "potential LV" in Figure 4a. Page 13, lines 2-3 state that

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if in the second step a fault has appeared in the CAN bus communication or the engine ignition is active, then in a sixth step a fault is indicated. This is inconsistent with Figure 4a which indicates that a fault is indicated if the engine ignition is inactive. Page 13, lines 19-20, "the central locking ZV" is unclear.

Appropriate correction is required.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The evaluator device of claims 2 and 16; the adjusting device of claim 14; and the step of evaluating characteristic values of claim 14, lack antecedent basis in the specification.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the evaluator device of claims 2 and 16, the AND-link or AND gate of claims 5 and 6, and the adjusting device of claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: TSS in Figure 3 (see page 10, line 32 – page 11, line 2) and μ C in claim 5.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: NT in Figure 3 and LV in Figures 4a and 4b. Corrected drawing sheets in

compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

8. Claims 1, 4-6, and 10-15 are objected to because of the following informalities: Claim 1, line 16, "the control device" lacks proper antecedent basis. For examination purposes, it has been assumed that "the control device" is the unit control device. Claim 4, line 3, "switching" should be "connecting". Claim 5, line 3, "the control of" should be deleted. Claim 5, line 4, "a control through" should be deleted. Claim 5, line 5, "the control device" lacks proper antecedent basis. Claim 6, lines 3-4, "of the logic" should be deleted. Claim 6, line 4, "the control device" lacks proper antecedent basis. Claim 10, line 3, "the control device" lacks proper antecedent basis. Claim 10, lines 4-5, "the actual potential" lacks proper antecedent basis. Claim 11, line 3, "the control device" lacks proper antecedent basis. Claim 11, line 4, "the control connection" lacks proper antecedent basis. Claim 12, line 2, "the control device" lacks proper antecedent

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basis. Claim 13, lines 2-3, "a relay in the form of a power switch" should be "a power switch in the form of a relay". Claim 13, lines 4-5, "a connection of" should be deleted. Claim 14, lines 14-15, "a control device" should be "a unit control device". Claim 14, line 17, "the control device" lacks proper antecedent basis. Claim 14, line 19, "the devices" lacks proper antecedent basis. Claim 15, line 13, "control device," should be "control device, and". Appropriate correction is required.

Double Patenting

9. Applicant is advised that should claims 2 and 8 be found allowable, claims 16 and 17 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-13, 14, and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. The claims appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

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13. Claim 1, lines 15-18 are unclear. It is unclear what is meant by a "potential of a control connection of the power switch", which specific structure corresponds to the power switch, or how the independent electrical lead connection, which is a wire, controls the control connection potential of the power switch or the power connection of the control device. The power connection of the control device is also a wire, and does not seem to be controllable via the independent electrical lead connection in any way. For examination purposes, it has been assumed that the power switch corresponds to relay RL3, and the control "connection" of the power switch is coil In3. A "potential" is a voltage value, which is abstract and not a specific structure. The claims should be amended to more clearly reflect which specific structure(s) are being switched or connected to which other structure(s). Claims 2-13, 16, and 17 inherit this deficiency.

14. Claim 3 recites the limitation "the potential can be switched to the independent electrical lead connection". It is unclear exactly what is being claimed. According to claim 1, the "potential" can be the control connection potential of the power switch (RL3). However, according the disclosure and Figure 3, the control connection (coil) of relay RL3 is connected directly to the independent electrical lead connection (St) without an additional switch. It is unclear which structure(s) is being switched to which other structure(s).

15. Claim 5 is unclear. It is unclear what is meant by "the potential through the central control device" or "a logic of the control device". In addition, no AND-link or AND gate is disclosed or illustrated. For examination purposes, it has been assumed that the

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power switches JFET and Q3 must both be conducting in order for the safety system to be in the "blocking" state. Claim 6 inherits this deficiency.

16. Claim 7 is unclear. It is unclear what is meant by "the potential for controlling the power switch". The power switch RL3 is a relay which is controlled by a coil In3, not a gate potential. The coil In3 is not switched between ground and a control potential. For examination purposes, it has been assumed that coil In3 is selectively connected to the battery voltage (U_b) via a switching device (JFET).

17. Claim 10 recites the limitation "the control device is in active connection with the independent electrical lead connection for evaluation of the actual potential". It is unclear exactly what is being claimed. The specification and drawings do not define an "actual potential", and it is unclear what is meant by "active connection". For examination purposes, it has been assumed that the unit control device is connected to the independent electrical lead connection, and that the independent electrical lead connection is used in some manner in the evaluation of the functional reliability of the central control device and its signal links and/or in the evaluation of characteristic values characterizing the operating state of the motor vehicle. Claim 11 inherits this deficiency.

18. Claim 14 recites the limitation "energizing an electromechanical unit ... by means of the potential (for controlling the lock)". It is unclear how the electromechanical unit is energized. For examination purposes, it has been assumed that the electromechanical unit is energized when no fault is detected in either of the evaluation steps. Claim 18 inherits this deficiency.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. Claims 1-13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Segawa et al. (6,133,646) in view of the US Patent of Kanda et al. (6,798,336) and the US patent of Rathmann (5,777,395).

As to claim 1, Segawa discloses a safety system for a locking device of a motor vehicle comprising: a unit control device (1) which has at least one power switch (13) for controlling an electromechanical unit (6) in a "blocking" (S/L) state (see column 2, line 43 - column 3, line 22 and Figure 1). Segawa does not disclose the claimed central control device or electrical lead connection.

Kanda discloses a central control device (1) which has signal links to a unit control device (13) and further unit control devices (other ECUs) of the motor vehicle, wherein an electromechanical unit (door lock) can be controlled through the central

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control device (13) via the signal links (see column 3, lines 50-53; column 3, line 65 – column 4, line 7; column 4, lines 20-26; and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have designed the system of Segawa for control by a central control device, in order to allow the safety system to be controlled by the vehicle's main ECU. Kanda does not disclose the claimed electrical lead connection.

Rathmann discloses a safety system for a locking device of a motor vehicle, comprising a central control device (3) and a unit control device (2), wherein the central control device (3) can control an electromechanical unit (9) through signal links (12), and an electrical lead connection (power connection between terminals 7 and 8) which is independent of the signal links, wherein the unit control device (2) is connected to the central control device (3) through the independent electrical lead connection, and wherein a power connection (from power supply 30) of the unit control device (2) is controllable (via switch contact 11) by the central control device (3) via the independent electrical lead connection (see column 2, lines 45-53; column 2, lines 64-67; column 3, lines 40-51; and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Segawa in view of Kanda by controlling a power connection of the unit control device by an electrical lead connection independent of the signal links, in order to prevent an over- or undervoltage condition from having an undesired effect on the door locks.

As to claims 2 and 16, the central control device (1) of Kanda has an evaluator device which is designed to control the power connection to the door lock in

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dependence on a state (whether the user's hand is on the external door handle and whether the door lock switch was operated) (see column 3, line 65 - column 4, line 7 and column 4, lines 20-26).

As to claim 3, the potential of the control connection of Rathmann can be switched (via switch contact 11) to the independent electrical lead connection for control (see column 3, lines 40-51 and Figure 1).

As to claim 4, the central control device (3) of Rathmann has a switch (11) for connecting or separating two different potentials (see Figure 1).

As to claims 5 and 6, the central control device (3) and the unit control device (2) of Rathmann are linked by a logical (AND-link) (the switch contact 11 of the central control device and one of the switches 4 or 5) must both be conducting in order for power to be supplied to the electromechanical unit (9) (see column 2, lines 45-60; column 3, lines 18-27 and 40-51; and Figure 1).

As to claim 7, the potential for controlling a power switch (4 or 5) of the unit control device (2) of Rathmann can be switched (via switch contact 11) between the earth (ground) potential and a control potential which is equal to a potential of a voltage source (30) in order to separate the independent electrical lead connection from the voltage source (30) potential and to switch it to the ground potential (see Figure 1).

Although Rathmann does not specify what the voltage source is, it would be readily apparent to one of ordinary skill in the art that the voltage source in a vehicle would be the vehicle's battery.

As to claims 8 and 17, signal connections of Kanda are a constituent part of a bus system (11) (see column 3, lines 50-52).

As to claim 9, the unit control device (1) of Segawa has a micro controller (2) which is connected (via transistor switch 20) to the control connection (coil) for controlling the power switch (13) (see column 2, lines 56-67 and Figure 1).

As to claims 10 and 11, the microcontroller (2) of Segawa in view of Kanda and Rathmann would be in active connection with the independent electrical lead connection, the independent electrical lead connection of Rathmann is used to supply power to the circuit, and the potential at switches 4 and 5 is evaluated via the signal links (12) to determine whether one or both switches have been actuated.

As to claim 12, the unit control device (13) of Kanda is mounted in a vehicle door, and the central control device (1) is mounted outside of the vehicle door, but inside the vehicle (see column 2, lines 20-30; column 3, lines 50-53; and Figure 1).

As to claim 13, Segawa discloses a power switch in the form of a relay (13) with a coil (see column 2, lines 56-60 and Figure 1), and in the cited combination, the independent electrical lead connection would be indirectly connected to the relay coil.

22. Claims 14, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segawa in view of Kanda and Rathmann as applied to claims above, and further in view of the US patent of Iwatani et al. (6,629,512).

As to claims 14, 15, and 18, Segawa in view of Kanda and Rathmann disclose all of the claimed features, as set forth above, except for the claimed evaluating and detecting steps. Iwatani discloses evaluating the functional reliability of a system (100)

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of a vehicle, including characteristic values (abnormalities) characterizing the operating state of the vehicle, detecting any failure, and allowing the system (100) to start only when a fault-free functioning method is detected (see column 21, lines 1-8). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have evaluated the functional reliability of the central control device and its signal links, and allow operation of the locking system via the central control device only when no faults are detected, because the locking system will only work properly when it is fault-free.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

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